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Time Domain Corporation
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August 3, 2001

Ms Magalie Roman Salas
Secretary
Federal Communications Commission
445 12th Street, S.W. TW-A325
Washington, DC 20554

Re: *Ex Parte* Notification in ET Docket 98-153

Dear Ms Salas:

On August 2nd, 2001, Jeff Ross and Paul Withington, of Time Domain Corporation as well as David Hilliard and Robert Pettit of Wiley, Rein, & Fielding, counsel to Time Domain, met with Julius Knapp, Michael Marcus, Karen Rackley, John Reed, Ron Chase and Bruce Romano all of the FCC's Office of Engineering and Technology.

The purpose of these discussions was to review spectral characteristics of UWB and GPS signals, the characteristics of UWB signals used in the three GPS susceptibility tests that have been submitted to the record, and the implications of such testing.

Specifically, Time Domain noted that:

- All three GPS susceptibility tests were performed with UWB signal sources that had spectral lines below some resolution bandwidth;
- Noise-coded UWB emissions were found to be white-noise-like in those tests;
- The Stanford University test did not incorporate either noise coding or data modulation and so was unrepresentative of any useful UWB device, except perhaps a digital device (as would be regulated under the FCC's digital device rules);
- The data in the Stanford study showed that at most an additional reduction of 3 dB could be rationalized for spectral features within a 1 MHz bandwidth;
- Even if one were to accept Stanford's assertion that actual degradation would be worse than the data showed and that about 10 dB should be factored in for spectral features, the Commission's proposal to drop the emissions limit at 2 GHz

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by 12 dB below the Part 15 class B limit should still provide sufficient protection in any realistic GPS deployment scenario;

- Since no study, if analyzed using realistic deployment scenarios and propagation modeling, showed how UWB emissions at Part 15 Class B levels would cause harmful interference to aviation safety-of-life applications, therefore the FCC's proposal to limit UWB emissions in the GPS bands to 12 dB below that limit was more than sufficient to protect GPS; and

- We also noted that the emissions limits for UWB energy falling into the GPS bands would likely be cited as a benchmark in other proceedings notwithstanding the fact that the Commission has on three occasions found the -70 dB_W/MHz limit sufficient for regulating broadband noise falling within the GPS L_1 band.

Yours truly,

s/Paul Withington
VP/Senior Technologist

cc: Ms. Rackley, Messrs. Knapp, Marcus, Reed, Romano, and Chase